

ABSTRACT

A method for joining workpieces made from plastic, the upper workpiece, facing a laser source, consisting of a material transparent to the laser beam, and the lower workpiece consisting of a material absorbent to the laser beam, such that the mutually bordering contact surfaces for the two workpieces melt and are joined to one another under pressure during a subsequent cooling, the guiding of the laser beam onto the site to be joined, and the mechanical compression of the workpieces being carried out simultaneously by a machining head. The corresponding device comprises a machining head with focussing devices for the laser beam onto the contact surface, and pressure-exerting devices for compressing the workpieces. A rotatably mounted glass ball or roller is particularly suitable as pressure-exerting device. The invention permits welding quality to be assured in conjunction with flexibility of the welding operation without expensive and complicated damping balls.